**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 – 2 (canceled)

3 (currently amended): A process for removing $SO_2$, NO, and $NO_2$ from a gas stream comprising the steps of

a. oxidizing at least a portion of NO in a gas stream to $NO_2$ with an electrical discharge reactor ~~The process of claim 2~~, said oxidizing step further comprising adding an alkene to the gas stream upstream of the electrical discharge reactor, followed by

b. scrubbing at least a portion of $SO_2$, NO, and $NO_2$ from the gas stream with a scrubbing solution comprising an alkali hydroxide in an amount sufficient to maintain a pH greater than 5, and

c. removing at least a portion of any alkali aerosols generated from the scrubbing step from the gas stream with an aerosol removal means.

4 (original): The process of claim 3, wherein said alkene is at least one taken from the group consisting of ethene and propene.

5 (currently amended): The process of claim ~~3~~2, wherein said electrical discharge reactor is a dielectric barrier discharge reactor.

6 (original): The process of claim 5, further comprising the step of oxidizing at least a portion of the NO to $HNO_3$ with said dielectric barrier discharge reactor.

7 – 15 (canceled)

16 (currently amended): A process for removing $SO_2$, NO, $NO_2$, and Hg from a gas stream comprising the steps of

a. oxidizing at least a portion of the NO in a gas stream to $NO_2$, and at least a portion of the Hg in a gas stream to oxidized mercury, with an electrical discharge reactor~~The process of claim 15~~, said oxidizing step further comprising adding an alkene to the gas stream upstream from the electrical discharge reactor, followed by

b. scrubbing at least a portion of the $SO_2$, NO, and $NO_2$ from the gas stream with a scrubbing solution comprising an alkali hydroxide in an amount sufficient to maintain a scrubbing solution pH greater than 5, and

c. removing at least a portion of any alkali aerosols generated from the scrubbing step, and oxidized mercury not captured in the scrubbing step, from the gas stream with an aerosol removal means.

17 (original): The process of claim 16, wherein said alkene is at least one taken from the group consisting of ethene and propene.

18 (original): The process of claim 16, wherein said electrical discharge reactor is a dielectric barrier discharge reactor.

19 – 23 (canceled)

24 (withdrawn): An apparatus for removing $SO_2$, NO, and $NO_2$ from a gas stream comprising

a. an oxidizing means for oxidizing at least a portion of the NO in a gas stream to $NO_2$, followed by

b. a scrubber suitably adapted to scrub at least a portion of the $SO_2$, NO, and $NO_2$ from the gas stream with a scrubbing solution comprising an alkali hydroxide in an amount sufficient to maintain the scrubbing solution pH greater than 6, and

c. an aerosol removal means for removing at least a portion of any alkali aerosols generated by the scrubber from the gas stream.

25 (withdrawn): The apparatus of claim 24, wherein said oxidizing means is at least one electrical discharge reactor.

26 (withdrawn): The apparatus of claim 25, wherein said electrical discharge reactor is at least one dielectric barrier discharge reactor.

27 (withdrawn): The apparatus of claim 26, wherein said dielectric barrier discharge reactor is adapted to oxidize at least a portion of the NO to $NO_2$ and $HNO_3$.

28 (withdrawn): The apparatus of claim 24, said scrubbing solution comprising alkali, alkali sulfite, alkali sulfate, and water, and having a pH greater than 6.

29 (withdrawn): The apparatus of claim 24, wherein said alkali is at least one taken from the group consisting of ammonium, sodium, and potassium.

30 (withdrawn): The apparatus of claim 24, wherein said aerosol removal means is at least one wet electrostatic precipitator.

31 (withdrawn): An apparatus for removing $SO_2$, NO, $NO_2$, and Hg from a gas stream comprising

a. an oxidizing means for oxidizing at least a portion of the NO in a gas stream to $NO_2$, and at least a portion of the Hg in a gas stream to oxidized mercury, followed by

b. a scrubber suitably adapted to scrub at least a portion of the $SO_2$, NO, and $NO_2$ from the gas stream with a scrubbing solution comprising an alkali hydroxide in an amount sufficient to maintain the scrubbing solution pH greater than 6, and

c. an aerosol removal means for removing at least a portion of any alkali aerosols generated by the scrubber, and oxidized mercury not captured by the scrubber, from the gas stream.

32 (withdrawn): An apparatus for removing $SO_2$, NO, and $NO_2$ from a gas stream comprising

a. an NO oxidizer adapted to oxidize at least a portion of the NO in a gas stream to $NO_2$, followed by

b. a scrubber adapted to scrub at least a portion of the $SO_2$, NO, and $NO_2$ from the gas stream with a scrubbing solution comprising an alkali hydroxide in an amount sufficient to maintain the scrubbing solution pH greater than 6, and

c. an aerosol remover adapted to remove at least a portion of any alkali aerosols generated by the scrubber from the gas stream.

33 (withdrawn): The apparatus of claim 32, wherein said NO oxidizer is at least one electrical discharge reactor.

34 (withdrawn): The apparatus of claim 33, wherein said electrical discharge reactor is at least one dielectric barrier discharge reactor.

35 (withdrawn): The apparatus of claim 34, wherein said dielectric barrier discharge reactor is adapted to oxidize at least a portion of the NO to $NO_2$ and $HNO_3$.

36 (withdrawn): The apparatus of claim 32, said scrubbing solution comprising alkali, alkali sulfite, alkali sulfate, and water, and having a pH greater than 6.

37 (withdrawn): The apparatus of claim 32, wherein said alkali is at least one taken from the group consisting of ammonium, sodium, and potassium.

38 (withdrawn): The apparatus of claim 32, wherein said aerosol remover is at least one wet electrostatic precipitator.